

Serial No. 10/533,062
Amendment
Responsive to Office Action dated February 19, 2009

TAM-104

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A system development method comprising:
 - a step of inputting program descriptions which define a plurality of devices by employing a Java program language capable of describing parallel operations;
 - a step of converting the input program descriptions into an intermediate expression;
 - a step of generating parameters which satisfy a real-time restriction, for the intermediate expression; and
 - a step of synthesizing circuit descriptions which are based on a hardware description language, on the basis of the generated parameters;wherein the program descriptions define the devices on a single bus by using a run method of the Java program language, and define clock synchronizations of the device by using barrier synchronizations,
- wherein in the run method, program codes which are to be executed in a thread constituting a multi-thread are described,
- ~~imposing wherein restrictions which are~~ an inhibition of dynamic instantiation ~~restriction~~ and an inhibition of a start method call from the run method ~~restriction are~~ imposed on the program descriptions by employing a Java program language,
- wherein the intermediate expression is a member selected from the group consisting of a concurrent control flow flag, a temporal automaton with a concurrent parameter, and a

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temporal automaton with parameters,

wherein parametric model checking is performed for the parameter generation, and

wherein the real-time restriction is given by RPCTL.

2. ~ 5. (Canceled)

6. (Currently Amended) A data processing system comprising:

a computer;

said computer inputting program descriptions which define a plurality of devices by employing a Java program language capable of describing parallel operations, converting the input program descriptions into an intermediate expression, generating parameters which satisfy a real-time restriction, for the intermediate expression, and synthesizing circuit descriptions which are based on a hardware description language, on the basis of the generated parameters;

wherein the program descriptions define the devices on a single bus by using a run method of the Java program language and define clock synchronizations of the devices by using barrier synchronizations;

wherein in the run method, program codes which are to be executed in a thread constituting a multi-thread are described,

wherein restrictions are imposed on the program descriptions which are an inhibition of dynamic instantiation restriction and an inhibition of a start method call from the run

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method restriction are imposed on the program descriptions by employing a Java program language,

wherein the intermediate expression is a member selected from the group consisting of a concurrent control flow flag, a temporal automaton with a concurrent parameter, and a temporal automaton with parameters,

wherein parametric model checking is performed for the parameter generation, and

wherein the real-time restriction is given by RPCTL.

7. (Canceled)